

## IN THE CLAIMS:

Please amend the claims as follows.

1           1. (original) A flush-mount antenna system, to enable communication with a  
2           moving vehicle via a satellite, comprising:

3                       a cavity having a rectangular upper perimeter with four sides and having a  
4           depth normal to said perimeter;

5                       an array comprising a plurality of subarrays of rectangular form positioned  
6           in a rectangular arrangement having length and width edges, each such subarray including  
7           at least one waveguide having slot-type radiating elements;

8                       said array positioned within said cavity and arranged for rotation about an  
9           axis-of-rotation adjacent to an edge of the array and aligned with a side of the upper  
10          perimeter;

11                      an elevation scan actuator to mechanically tilt said array about said axis-  
12          of-rotation without removing the array from said cavity;

13                      a signal port; and

14                      a feed configuration to couple signals between the signal port and each  
15          subarray.

1           2. (original) A flush-mount antenna system as in claim 1, additionally  
2           comprising:

3                      an azimuth scan assembly to mechanically rotate said array to provide  
4           scanning in azimuth.

1           3. (original) A flush-mount antenna system as in claim 2, wherein the azimuth  
2 scan assembly is arranged to mechanically rotate said cavity and the array positioned  
3 therein.

1           4. (original) A flush-mount antenna system as in claim 1, wherein the array  
2 comprises square flat-plate type subarrays contiguously positioned in a rectangular array.

1           5. (currently amended) A flush-mount antenna system as in claim 1, wherein  
2 each individual subarray of said plurality of subarrays includes slotted waveguides in  
3 parallel side-by-side arrangement and each waveguide includes at least one row of slot-  
4 type radiating elements.

1           6. (original) A flush-mount antenna system as in claim 1, wherein said slot-type  
2 radiating elements comprise crossed-slot radiating elements.

1           7. (original) A flush-mount antenna system as in claim 1, wherein a length edge  
2 of the array is positioned adjacent to said axis-of-rotation.

1           8. (original) An antenna system, to enable communication via satellite,  
2 comprising:  
3                   a cavity having an upper perimeter and a depth normal to said perimeter;  
4                   an array comprising a plurality of subarrays positioned in a two-  
5 dimensional arrangement having an edge section and configured to provide a beam

6 pattern, each said subarray including at least one waveguide section having slot-type  
7 radiating elements;  
8 said array positioned within said cavity and arranged for rotation about an  
9 axis-of-rotation adjacent to said edge section of the array to scan the beam pattern in  
10 elevation;  
11 an elevation scan actuator to mechanically tilt said array by rotation about  
12 said axis-of-rotation without removing the array from said cavity;  
13 a signal port; and  
14 a feed configuration to couple signals between the signal port and each  
15 subarray.

1 9. (original) An antenna system as in claim 8, additionally comprising:  
2 an azimuth scan assembly to mechanically rotate said array to scan the  
3 beam pattern in azimuth

1 10. (original) An antenna system as in claim 9, wherein the azimuth scan  
2 assembly is arranged to mechanically rotate said cavity and the array positioned therein.

1 11. (original) An antenna system as in claim 8, wherein the array comprises  
2 square flat-plate type subarrays contiguously positioned in a rectangular array.

1 12. (currently amended) An antenna system as in claim 8, wherein each  
2 individual subarray of said plurality of subarrays includes slotted waveguides in parallel

3 side-by-side arrangement and each waveguide includes at least one row of slot type  
4 radiating elements.

1 13. (original) An antenna system as in claim 8, wherein said slot-type radiating  
2 elements comprise crossed-slot radiating elements.

1 14. (original) An antenna system as in claim 8, wherein the upper perimeter  
2 includes a linear side portion and said axis-of-rotation is adjacent and parallel to said  
3 linear side portion and said array edge section.

1 15. (currently amended) An antenna system, to enable communication via  
2 satellite, comprising:

3 a cavity having an upper perimeter including a linear side portion and a  
4 depth normal to said perimeter;

5 an array comprising a plurality of radiating elements ~~subarrays~~ positioned  
6 in a two-dimensional arrangement and configured to provide a beam pattern, the array  
7 including a linear edge section ~~each said subarray including at least one waveguide~~  
8 ~~section having slot-type radiating elements;~~

9 said array positioned within said cavity and arranged for rotation about an  
10 axis-of-rotation to scan the beam pattern in elevation, said axis-of-rotation adjacent and  
11 parallel to said side portion and said edge section;

12 an elevation scan actuator to mechanically tilt said array by rotation about  
13 said axis-of-rotation without removing the array from said cavity;

14 a signal port; and  
15 a feed configuration to couple signals between the signal port and said  
16 array ~~each subarray~~.

1 16. (original) An antenna system as in claim 15, additionally comprising:  
2 an azimuth scan assembly to mechanically rotate said array to scan the  
3 beam pattern in azimuth

1 17. (original) An antenna system as in claim 16, wherein the azimuth scan  
2 assembly is arranged to mechanically rotate said cavity and the array positioned therein.

1 18. (original) An antenna system as in claim 15, wherein the array comprises  
2 square flat-plate type subarrays contiguously positioned in a rectangular array.

1 19. (currently amended) An antenna system as in claim 18 ~~15~~, wherein each  
2 individual subarray ~~of said plurality~~ includes slotted waveguides in parallel side-by-side  
3 arrangement and each waveguide includes at least one row of slot type radiating elements.

1 20. (currently amended) An antenna system as in claim 19 ~~15~~, wherein said slot-  
2 type radiating elements comprise crossed-slot radiating elements.

1 21. (canceled)